

Chapter 129

Report on Global Environment

Competitiveness of Switzerland

Switzerland is situated in western Europe, bordered by Germany to the north, France to the west, Italy to the south, Austria and Liechtenstein to the east. The Swiss climate is generally temperate, but can vary greatly between the localities. It covers 40.0 thousand of square kilometers and has a population of 7.91 million. Its GDP reaches \$659.31 billion in 2011. Through the index system and evaluation model, the environment competitiveness index of Switzerland ranks at 1 in 133 countries.

Score:
58.68
Rank:
1

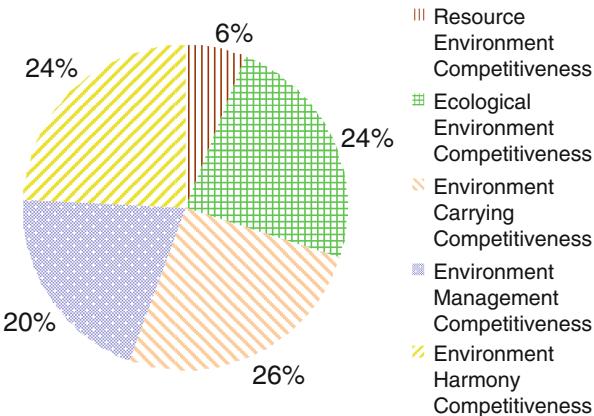


Fig. 129.1 Contribution of sub-index to GEC

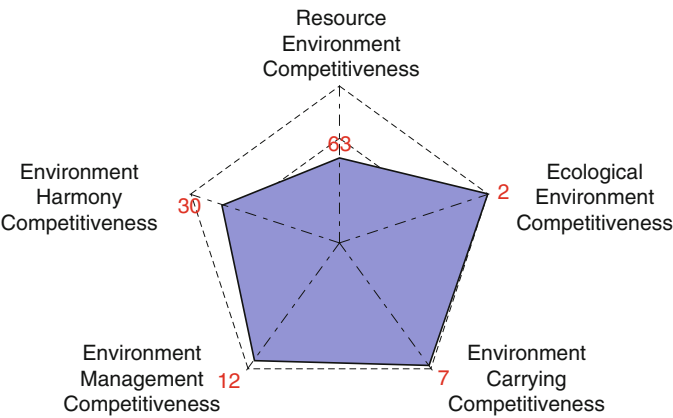


Fig. 129.2 Rank of sub-index of GEC

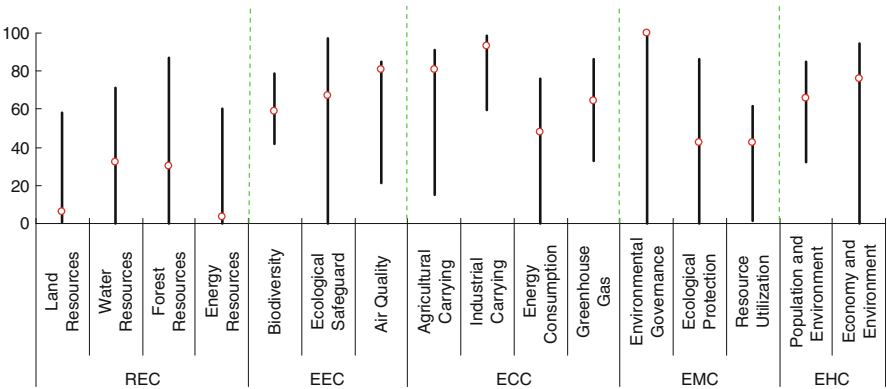


Fig. 129.3 Score and rank of the pillars of GEC

Table 129.1 Score and rank of all indicators of GEC

Indicators	Score	Rank	Indicators	Score	Rank
1 Resource Environment Competitiveness	17.92	63	Total internal renewable water resources	50.94	19
1.1 Land Resources	6.18	117	1.3 Forest Resources	30.30	64
Land area per capita	0.89	110	Growing stock in forest and other wooded land	51.30	66
Percentage of arable land to total land area	17.02	78	Proportion of land area covered by forest	36.44	58
Arable land per capita	2.39	118	Forest area per capita	1.10	83
1.2 Water Resources	32.03	32	1.4 Energy Resources	3.39	91
Surface water	14.44	20	Fossil energy	0.00	64
Annual precipitation	53.79	30	Energy production	1.63	45
Groundwater	8.96	70			

(continued)

Table 129.1 (continued)

Indicators	Score	Rank	Indicators	Score	Rank
Proportion of combustible renewable and waste to total energy consumption	9.57	64	3.3 Energy Consumption	47.70	7
Net energy imports of the energy consumption	6.03	91	Energy consumption per unit of land area	98.60	114
2 Ecological Environment Competitiveness	70.29	2	Ratio of clean energy consumption	66.94	4
2.1 Biodiversity	58.99	33	Elasticity of energy consumption	14.57	27
Threatened fish species	95.75	24	Elasticity of electric power consumption	10.69	65
Threatened mammal species	98.91	6	3.4 Greenhouse Gas	64.08	49
Threatened plant species	99.88	30	Growth rate of CO ₂ emissions	52.71	61
GEF benefits index for biodiversity	0.20	109	Growth rate of Methane emissions	59.81	56
2.2 Ecological Safeguard	67.39	7	CO ₂ emissions per unit of land area	98.78	115
Terrestrial protected areas	67.39	15	CO ₂ emissions per unit of energy consumption	56.36	39
Marine protected areas	N/A	N/A	4 Environment Management Competitiveness	59.55	12
2.3 Air Quality	80.94	20	4.1 Environmental Governance	100.00	1
Inhalable particles (PM10)	85.40	39	Agricultural chemicals regulation	100.00	1
Particulate matter (PM2.5)	87.21	53	Percentage of the rural population with access to an improved water source	100.00	1
Index of indoor air pollution	100.00	1	Percentage of the urban population with access to an improved water source	100.00	1
Nitrogen oxides emission	68.50	39	4.2 Ecological Protection	42.17	34
Sulfur dioxide emission	40.93	19	Area of plantation and afforestation	0.22	73
3 Environment Carrying Competitiveness	74.68	7	Biome protect	98.10	19
3.1 Agricultural Carrying	81.11	8	Overfishing of fishing resources	N/A	N/A
Cereal yield per unit of arable land	64.47	13	4.3 Resource Utilization	42.28	39
Fertilizer consumption per unit of arable land	84.60	102	Utilization rate of water resources	0.19	76
Annual freshwater withdrawals for agriculture per unit of arable land	99.82	30	Percentage of total internal renewable water resources to total water resources	72.14	57
3.2 Industrial Carrying	93.31	44	Percentage of agricultural land to total land area	45.06	83
Net exports of goods as a percentage of GDP	77.51	84			
Electric power consumption per unit of value added of industry	96.88	18			
SO ₂ emissions per unit of value added of industry	100.00	4			
Annual freshwater withdrawals for industry per value added of industry	98.87	42			

(continued)

Table 129.1 (continued)

Indicators	Score	Rank	Indicators	Score	Rank
Percentage of fossil fuel energy consumption to total energy consumption	51.73	33	SO ₂ emissions per capita	98.82	27
			CO ₂ emissions per capita	84.84	88
			Energy consumption per capita	74.66	98
5 Environment Harmony Competitiveness	70.96	30	5.2 Economy and Environment	76.07	2
5.1 Population and Environment	65.85	92	Land resource utilization efficiency	4.81	5
Percentage of population with access to Improved sanitation facilities	100.00	1	Sulfur dioxide emissions per unit of GDP	99.96	2
Motor vehicles per 1,000 people	30.86	119	Carbon dioxide emissions per unit of GDP	99.50	2
Renewable internal freshwater resources per capita	6.18	50	Energy consumption per unit of GDP	100.00	1

Table 129.2 Rank distribution of the individual indicators of GEC

Sub-index	Number of the individual indicators	Rank 1–10	Rank 11–30	Rank 31–60	Rank 61–100	Rank 101–133
Resource Environment Competitiveness	14	0	2	3	7	2
Ecological Environment Competitiveness	11	3	4	4	0	0
Environment Carrying Competitiveness	15	4	3	3	2	3
Environment Management Competitiveness	10	3	1	3	3	0
Environment Harmony Competitiveness	10	5	1	1	2	1
Total	60	15	11	14	14	6

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